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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,749	08/28/2001	James H. Lie	0325.00503	5761

21363 7590 07/14/2003

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EXAMINER

THOMPSON, ANNETTE M

ART UNIT PAPER NUMBER

2825

DATE MAILED: 07/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,749

Applicant(s)

LIE, JAMES H.

Examiner

A. M. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

This application, 09/940,749 has been examined. Claims 1-20 are pending.

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it is merely a recitation of claim 1 and lacks a narrative format. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Rejection of Claims 1-4, 7-17, 19, 20

4. **Claims 1-4, 7-17, 19, 20** are rejected under 35 U.S.C. 102(e) as being anticipated by Malhotra et al., U.S. Patent 6,320,410. Malhotra relates to a circuit, method, and apparatus for optioning the density of a CPLD to provide convenient design migration.
5. Pursuant to claim 1, Malhotra teaches a method for generating superset pinout for a family of devices (Table 3), comprising defining a pinlist for each device within said family of devices (Tables 3, 4); generating a superset listing of pins from said pinlist (col. 5, ll. 19-22; col. 3, ll. 10-24); creating said superset pinout for said family of devices (tables 3 and 4); and marking each pin of said superset pinout associated with each member of said family of devices (tables 3 and 4).
6. Pursuant to claim 2, further comprising customizing said superset pinout (Tables 3 and 4 illustrates this limitation).
7. Pursuant to claim 3, comprising marking a specific pinout for each member of said family of devices in response to the customizing (col. 2, ll. 8-17, (Tables 3 and 4).
8. Pursuant to claim 4, wherein said family of devices comprises devices with combined programmable logic and high-speed serial channels (col. 1, ll. 13-16).
9. Pursuant to claim 7, further combining pins shared by more than one member (Tables 3, 4).
10. Pursuant to claim 8, further comprising allocating a pin for each signal in the pinlist (Tables 3,4).

11. Pursuant to claim 9, which provides a footprint common to members of the family of devices (column 1).
12. Pursuant to claim 10, comprising accommodating needs common to members of said family of devices (cols. 1-4).
13. Pursuant to claim 11, comprising limiting each pin to a single function (col. 1, 2).
14. Pursuant to claims 12-17, the limitations of these claims are disclosed in columns 1 thru column 6 line 20.
15. Pursuant to claim 19, which recites an apparatus with means for generating superset pinouts. . . (col. 1, ll. 7-10).
16. Pursuant to claim 20, which recites an apparatus comprising a device configured to generate superset pinouts for a family of devices (col. 3, line 47 to col. 4, line 2).

Claim Rejections - 35 USC § 112

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Claims 5, 6, 7, 9, 11, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: Pursuant to claim 5, the relation between *footprint variations* and claim 1 is unclear. Pursuant to claim 6, the relation between *layout variations* and claim 1 is unclear. Pursuant to claim 7, the relation between *combining pins* and claim 1 is unclear. Pursuant to claim 9, the relation between providing a footprint common to

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members of said family is unclear. Pursuant to claim 11, the relationship between the functions, pins and claim 1 is unclear. Pursuant to claim 18, the relation between layout and footprint changes and claim 1 is unclear.

19. Pursuant to claim 10, it is unclear what and which needs are being accommodating. Pursuant to claim 12, the step of initiating is unclear within the context of the claim.

Allowable Subject Matter

20. Claims 5, 6, and 18 contain allowable subject matter.

21. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not reducing or eliminating layout and footprint changes on a board between a family of devices.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please reference the PTO-892 for a complete listing.

23. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to A.M. Thompson whose telephone number is (703) 305-7441. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 5:00 p.m.. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew S. Smith, can be reached on (703) 308-1323.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956 or the Customer Service Center whose telephone number is (703)306-3329.

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24. Responses to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9318, (for **OFFICIAL** communications intended for entry)

(703)872-9319, (for Official **AFTER-FINAL** communications)

Hand-delivered responses should be brought to Crystal Plaza 4, 2021 South Clark
Place, Arlington, VA., Fourth Floor (Receptionist).



A.M. THOMPSON
Patent Examiner

30 June 2003